



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,393	08/27/2003	Kenichi Mitsumori	9281-4664	6750

7590

02/10/2006

Gustavo Siller, Jr.
BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER

STINSON, FRANKIE L

ART UNIT

PAPER NUMBER

1746

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,393

Applicant(s)

MITSUMORI ET AL.

Examiner

FRANKIE L. STINSON

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-19 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-19 and 27-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Art Unit: 1746

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 27, 16, 17, 19, 28, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson (U. S. Pat. No. 4,103,519) in view of either Faidley (U. S. Pat. No. 2,986,649) or Umezawa (U. S. Pat. No. 4,740,726).

Re claim 27, Davidson is cited disclosing a wet treatment nozzle comprising:

an ultrasonic cleaner comprising a housing, an ultrasonic transducer (19) placed on a bottom surface of the housing,

an introduction passage (29) for introducing a treatment liquid on a side of the ultrasonic cleaner,

an exhaust passage (37) which exhausts the treatment liquid on an other side of the ultrasonic cleaner after a wet treatment of an object to be treated, the exhaust passage exhausting the treatment liquid that wet treated the object,

wherein the ultrasonic cleaner, while vibrating, guides the treatment liquid to wet treat the object to be treated,

wherein a pressure controller maintains a difference between a pressure treatment liquid in contact with the object to be treated and an atmospheric pressure, so that the treatment liquid wet treats only a portion of the object to be treated to which the treatment liquid is supplied (see abstract), that differs from the claim only in the

Art Unit: 1746

recitation of the weight on the housing with the weight minimizing propagation of energy from the ultrasonic transducer to a wall of the housing by shifting the characteristic frequency of the wall of the housing, The patents to Faidley and Umezawa are each cited disclosing transducer, where the transducers are provided with a weight, (Faidley, col. 1, lines 53-57 and Umezawa, claim 9). It therefore would have been obvious to one having ordinary skill in the art to modify the ultrasonic cleaner in Davidson, to include a weight as taught by Faidley or Umezawa for the purpose of increasing the efficiency and stability of the transducer and the efficacy of the sonic wave transmission. Re claims 16, 17 and 19, to position the weight at various location including wall thickness, is deemed to be an obvious matter of design in that the weight as taught by either Faidley or Umezawa, is considered to be the functional equivalence of each other (see MPEP 12144.06). Re claim 28, Davidson discloses the shape. Re claim 29, the same is deemed to be inherent in Davidson as proposedly modified. Re claim 30, Davidson discloses the contact portion.

3. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applied prior art as applied to claim 27 above, and further in view of Eppes (U. S. Pat. No. 4,764,021).

Claim 18 defines over the applied prior art only in the recitation of the weighted housing. Eppes is cited disclosing the weighted housing (see col. 2, lines 14-17) providing stabilization as claimed. It therefore would have been obvious to one having ordinary skill in the art to modify the arrangement of Davidson, to be as taught by Eppes, for the purpose of efficiently employing the wave energy.

Art Unit: 1746

4. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

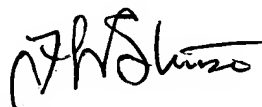
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In Japan'418 and Grave, note the cleaning means.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANKIE L. STINSON whose telephone number is (572) 272-1308. The examiner can normally be reached on M-F from 5:30 am to 2:00 pm and some Saturdays from approximately 5:30 am to 11:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached on (571) 272-1700. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

fls


FRANKIE L. STINSON
Primary Examiner
GROUP ART UNIT 1746